

AMPJET 400Hz AC

GROUND POWER UNITS JUST GOT BETTER.
AND SMARTER.



Tri Star

Aircraft Spares



Simple to operate. Easy to maintain. Rugged.

Now you're in control - AMPJET revolutionized ground power units.
Setting a new standard in simplicity and ease of use, and ruggedness.



AMPJET 90
GPU-AD91DG-C

AMPJET®’s series of diesel engine powered 400Hz AC generators (Ground Power Units / GPU’s) offer a cost effective alternative to running the APU on aircraft. They come World-Ready in 60, 90, 120, 140, 180kVA sizes and with engine options to meet local emissions requirement. Our GPU’s are designed for use in extreme climates from scorching desert heat, to arctic cold and tropical rains; AMPJET GPU’s perform anywhere!



Simple to Operate

Utilizing PLC controls that have been proven reliable in numerous applications for years, AMPJET makes the operator's job as simple as, "Push-a-Button".

Rugged

Thick steel frame, with heavy steel corner bumpers, are the strong foundation of our rugged products. An all steel enclosure protected by a powder paint system add to the durability. Components chosen for their reliability and extreme performance make AMPJET world-ready.

Easy to Maintain

AMPJET features include a simple push-button design, intuitive alarm indicators (no codes) and plug and play options.

More Powerful

AMPJET provides consistent, clean, quality power and meets or exceeds the industry standard MIL-STD-704-F and SAE ARP 5015. Capable of 125% of rated load for 5 min., they can stand up to your toughest applications.

Application »
Airplane - Ground Power

Product Numbers

Tier III / Stage 3B

GPU-AD60DG
GPU-AD91DG
GPU-AD121DG
GPU-AD141DG
GPU-AD180DG

Tier IVF / Stage V

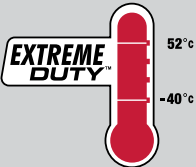
GPU-AD60DG-T4F
GPU-AD90DG-T4F
GPU-AD120DG-T4F
GPU-AD140DG-T4F
GPU-AD180DG-T4F

DC Output (Optional)
GPU-AD28TR

Output »



Input »



AMPJET 400HZ AC

Features »

1. FUEL AND VISIBITY BEACONS
2. ELECTRICAL CONTROL PANEL ACCESS
3. 4 CORNER MARKER LIGHTS
4. TOW BAR BRAKE / ADJUSTABLE
5. 5TH WHEEL STYLE UNDERCARRIAGE
6. HEAVY DUTY 14GA SHEET METAL ENCLOSURE
7. ZINC RICH 2 COAT POWDER COATING RUST PROTECTION
8. RUGGED 13" DEEP MAIN FRAME RAILS W/ CORNER BUMPERS
9. MAIN CONTROL PANEL (COMAP) W/ WEATHER COVER
10. CONTROL PANEL (COMAP)
11. 8 CORNER REFLECTORS
12. RUGGED 5/16" THICK STEEL CHASSIS
13. HEAVY DUTY 750KG TIRES [4]



Rugged!
Built to last.



AMPJET 400HZ AC

Elements »

1. LARGE ACCESS DOORS
2. ELECTRICAL PANEL ACCESS (COVER REMOVED)
3. 6" DEEP CABLE TRAYS
4. MECC ALTE GENERATOR
5. DONALDSON AIR CLEANER
6. 56 GAL [211L] / 87 GAL [329L] FUEL TANK
7. PERKINS / DEUTZ DIESEL ENGINE 110HP-320HP
8. FORK LIFT POCKETS
9. FOAM FILLED TIRES (OPTIONAL)
10. 8 TIE DOWN RINGS
11. LOWER NOISE FOAM LINED ENGINE CABINET



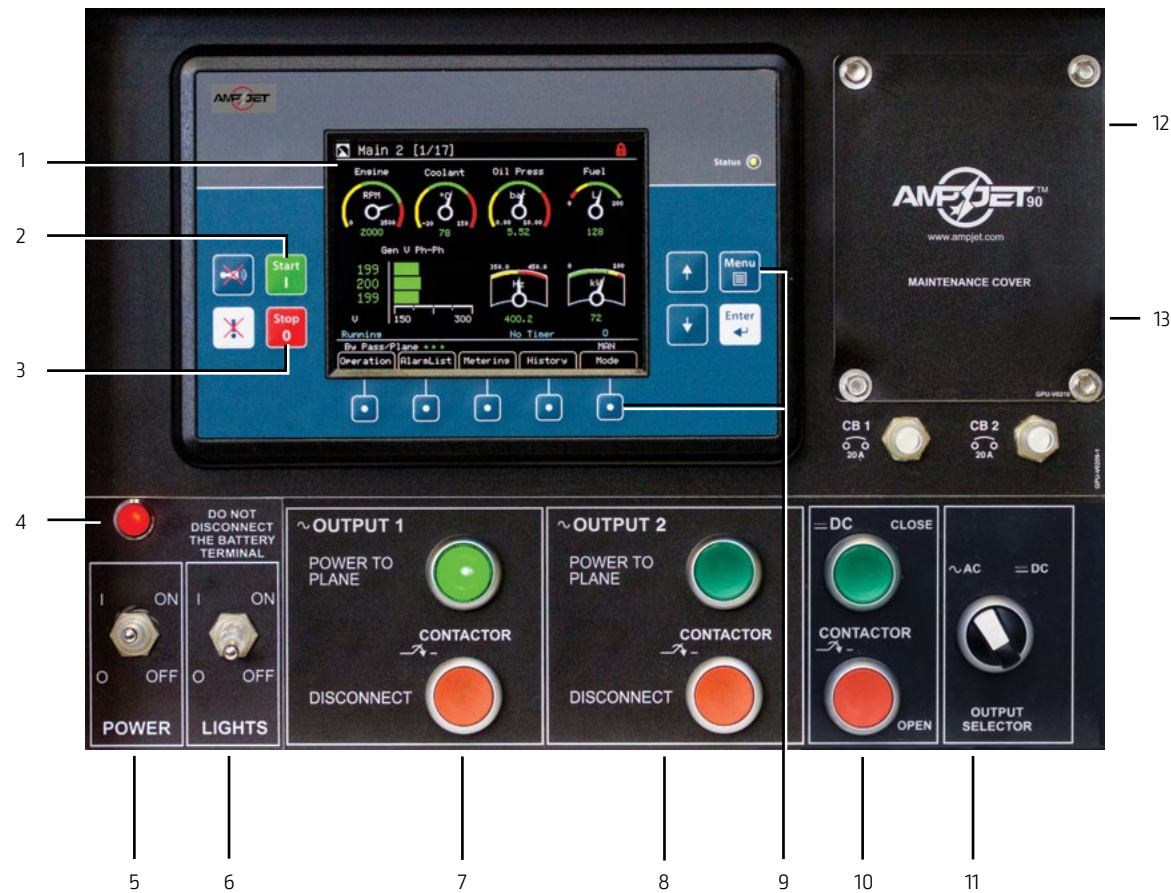
Easy Access!
Designed with your maintenance team in mind.



AMPJET 400HZ AC

Controls »

1. 5" COLOR DISPLAY – 7 CRITICAL METRICS AT-A-GLANCE
2. SIMPLE PUSH-A-BUTTON - START
3. SIMPLE PUSH-A-BUTTON - STOP
4. DEF STATUS INDICATOR
5. MAIN SYSTEM POWER SWITCH
6. WARNING BEACON AND MARKER LIGHTS SWITCH
7. PRIMARY OUTPUT CONTROLS
8. SECOND OUTPUT CONTROLS (OPTIONAL)
9. ADDITIONAL INFORMATION MENUS
10. DC OUTPUT CONTROLS (W/ DC OPTION)
11. AC / DC SELECTOR (W/ DC OPTION)
12. E+F BYPASS SWITCH (COVERED)
13. CURRENT LIMITING (DC OPTION ONLY) (COVERED)



Push-a-Button!

Intuitive interface makes operation simple.

Because sometimes you want to know, a 5" color display provides information about 7 critical engine and generator functions. See at a glance how the GPU is performing.

Additional menu buttons provide more information. Warm-up and cool down are automatically timed and with our "Auto-Sleep" feature (option) – the GPU main power shuts off automatically after cool down.



System Selection »

Choose GPU Engine Emission Requirement and Output Power

Tier 3

- 60kVA Perkins [GPU-AD60DG]
- 90kVA Deutz [GPU-AD91DG]
- 120kVA Deutz [GPU-AD121DG]
- 140kVA Deutz [GPU-AD141DG]
- 180kVA Deutz [GPU-AD181DG]
- 180kVA Perkins [GPU-AD180DG]

Tier 4F / Stage 5

- 60kVA Perkins [GPU-AD60DG-T4F]
- 90kVA Perkins [GPU-AD90DG-T4F]
- 120kVA Perkins [GPU-AD120DG-T4F]
- 140kVA Perkins [GPU-AD140DG-T4F]
- 180kVA Perkins [GPU-AD180DG-T4F]

Choose Additional Output or DC Power Option

- Additional AC output 90kVA [GPU-AD5041]
- DC Output [TR] [GPU-AD28DG]

Choose AC Output Cable

- 30' (10m) 2/0 4X MIL-STD-5356-C with connector [GPU-A0033]
- 30' (10m) 2/0 4X AWG with connector [GPU-AD5024]

Other cable options and lengths available, inquire.

Choose DC Output Cable if Ordering GPU-AD28DG

- 30' (10m) 4/0 2X MIL-STD-5356-C with connector [GPU-0272]
- 30' (10m) 4/0 2X AWG with connector [GPU-AD5022]

Other cable options and lengths available, inquire.

Select Electrical Options

- Cable Connected Warning System [GPU-AD5013]
- Battery Switch [Required with AD5013] [GPU-AD5018]
- Digital Gateway / Telemetry [GPU-AD5010]
- Premium Engine Warning Kit [GPU-AD5037]
- Auto-Sleep Feature [GPU-AD5044]
- 115VAC, 1500W, 60Hz, Auxiliary [GPU-AD5017]

Select Body Options

- Stainless Steel Fuel Tank [GPU-A0029-SS]
- Corner Bumpers [GPU-AD5012]
- Cable Tray Rollers [GPU-AD5026]
- Foam Filled Tires [GPU-AD5043]

Select Cold Weather Kit

- Extreme CWK Deutz 90 Tier III [GPU-5038X]
- CWK Perkins 90 Tier IVF [GPU-5053]
- Extreme CWK Perkins 90 Tier IVF [GPU-AD5053X]

Custom kits for other engines available, inquire.



ENGINES

		AMPIJET 60	AMPIJET 90	AMPIJET 120	AMPIJET 140	AMPIJET 180
Tier III / Stage 3A	Perkins	1104D / 110 HP				1106D / 320 HP
	Deutz		TCD2013 / 172 HP	TCD2013 / 205 HP	TCD2103 / 250 HP	TCD2013 / 285 HP
	Cylinder Charging	Turbo / Intercooled				
	Fuel / Type	Diesel / Jet A				
	GPU Size L x W x H mm [in]	3129 [123] x 1892 [75] x 1787 [70]				3379 [133]L

Tier IVF / Stage 5	Perkins	854F / 74 HP	1204F / 174 HP	1206F / 205 HP	1206F / 250 HP	1206F / 320 HP
	Deutz		TCD 4.1 / 154 HP	TCD 6.1 / 205 HP	TCD6.1 / 240 HP	TCD 7.8 / 320 HP
	Cylinder Charging	Turbo / Intercooled	Twin Turbo / Intercooled			
	Fuel / Type	Low Sulfur Diesel				
	After Treatment	DOC / DPF	DOC / SCR	DOC / DPF / SCR	DOC / DPF / SCR	DOC / DPF / SCR
	GPU Size L x W x H mm [in]	3129 [123] x 1892 [75] x 1888 [75]			3129 [123] x 1892 [75] x 1984 [78]	

Other	GPU Weight kg (lb)	1500 (3300)	2000 (4300)	2100 (4600)	2300 (5100)	2500 (5500)
	Fuel Capacity	211L (56 Gal)	211L (56 Gal)		329L (87 Gal)	
	Min Time between Fills	10+ Hrs. Full Load	8+ Hrs. Full Load		8+ Hrs. Full Load	
	Turning Radius mm (in)	7100 (278)				7600 (300)

GENERATORS

	60 kVA	90 kVA	120 kVA	140 kVA	180 kVA
Alternator Manufacturer	Mecc Alte				
Engineering Standards	MIL-STD-705-C / MIL-STD-704F / SAE ARP 5015				
Voltage / Frequency	115V/200V +/- 1% 400Hz +/- 0.5%				
Overload Capacity 110%	66kVA -10min	100kVA-10min	132kVA-10min	154kVA-10min	198kVA-10min
Overload Capacity 125%	75kVA-5min	112kVA-5min	150kVA-5min	175kVA-5min	225kAV-5min
Outputs	1	1 [2 as option]	2		
Speed	2000 RPM	2000 / 1846 RPM	2000 RPM	1846 RPM	1846 RPM
Bearing	Single				
Protection	Over / Under Voltage				
Line Drop Compensation	Automatic				

28V OUTPUT (OPTIONAL)

Transformer Rectifier	28V - 850A Continuous 2000A Peak [5 Sec]
Adjustable Current Limit	300 - 2000A



Features	All 400Hz AMPJET Models
CHASSIS	
Enclosure - 14 Gauge Steel - Easy Access	•
Steering - Easy Maneuver 5th Wheel	•
Wheels - Easy Pull 12" [305mm]	•
Braking - Tow Bar Activated - Adjustable	•
Engine / Generator Mounting - 4X Extreme Duty Rubber Isolators	•
Hitch - Heavy Duty Lunette Eye	•
Forklift Pockets 8" x 4" [203 x 102mm]	•
Tie Down Rings - 2 front / 2 rear	•
CONTROL PANEL	
Controller - Intuitive - Digital - Manufactured by ComAP	•
Engine Monitoring - Battery Volts, Water Temp, Oil Pressure, Fuel Level, Tachometer, Hour Meter	•
User interface - See 7 Vital Functions at A Glance	•
Power Output Monitoring - Output Volts, Frequency, Power	•
Trouble Shooting Display - Warnings / Faults	•
Battery - 12V, 1000Amp CCA	•
Trouble Shooting Features - Numbered Wiring, Wiring Diagrams	•
Operation History	•
ENGINE PROTECTION	
Delayed Stop Turbo Protection	•
Full Application Approval	•
Over Speed Protection	•
Full Flow Fuel Filter	•
Full Flow Lubricating Oil Filter	•
Muffler	•
Engine Diagnostics	•
Engine Preheater	option
Low Oil Pressure Shut Down Switch [SDS]	•
High Temp Water SDS	•
Low Coolant Level Shutdown	option
Air Intake Restriction Indicator	•
Low Fuel Warning	•
ENVIRONMENT	
Temperature -40°F to 125°F [-40°C+52°C] w/ Extreme Cold Weather Kit Option	option
High Altitude Performance	•

Features	All 400Hz AMPJET Models
SAFETY	
E-Stop	•
Fire Extinguisher	option
Visibility Beacon	•
Reflectors - For Easy Visibility at Night [10X]	•
Noise - Sound Suppression Foam Throughout Engine Compartment	•
Parking Brake - Tow Bar Adjustable	•
PROTECTIVE COATINGS	
Primer - Powder Coated Zinc Primer - All Exterior Sheet Metal	•
Top Coating - Powder Coated	•
Standard Colors	White / Black
PEACE OF MIND	
Warranty - Everything - Parts and Labour - 2 Years*	•
Warranty - Engine - Perkins Full Time and Mileage Warranty, 2 Years or 3000 Hours	•
Warranty - Engine - Deutz, 2 years Unlimited Hours	•
Satisfaction Guarantee - 100 Days - You're Happy or We Take it Back Promise	•
Designed and Assembled in Canada	•
OPTIONS	
Tranformer Rectifier w/ 28V Output Cable	option
Dual Output - AC/AC	option
56 Volt Output - DC	option
270 Volt Output - DC	option
Digital Gateway / Telematics [GPS/GSM][Cell/Network link] [GPU-AD5010]	option
Power Cables - 30' Standard MIL 5756 or AWG Output Cables [Custom lengths available]	4X 2/0 Cable w/head
Quick Breakaway Power Cables	option
Swivel Base for Quick Breakaway	option
Auxiliary Output - 120 VAC/ 1500W [GPU-AD5017]	option
Cold Weather Kit [CWK] - Glow Plugs, Battery Warmer, Block Heater (various part numbers, inquire)	option
Extreme Cold Weather Kit - CWK Plus Heated Water Fuel Separator, 2nd Battery, Extreme Fluids	option
Forklift Pockets	Standard
Galvanized Chassis [GPU-AD5050]	option
Stainless Steel Fuel Tank [GPU-A0027-SS]	option
Low Fuel Beacon	Standard
Paint - Custom Colors	option
<i>Find more options and descriptions on pages 14 & 15.</i>	

Option Descriptions »

Output Cable Warning System

[GPU-AD5013]

Warns operators that the output cable may still be attached to the plane and with intense flashing strobes lights and an 110dBA horn. Placing output cable in the home location on the GPU turns off visual and audible warnings.



Output Plug Home Position



Output Connected Warning Strobe



28.5V DC Power Output

[GPU-AD28TR]

Transformer rectifier capable of producing 850 amps continuous DC voltage at 28.5V. Its peak capacity is 2000 Amps.

Auto Sleep Feature

[GPU-AD5044]

Automatic timer that shuts down the GPU control panel after the engine has cooled off and shutdown properly. It eliminates having to stand beside the GPU for 2-3 min while the cool down cycle finishes, and manually turn off control panel power.

Premium Engine Warning System

[GPU-AD5037]

Includes low coolant sensor tied into engine protection circuit.



Option Descriptions »

Digital Gateway

[GPU-AD5010]

[Telematics] is a powerful communication tool that links via cellular SIM card to a network of the customers choosing. [Cell subscription not included]. With this installed, GPU can forward messages regarding performance, maintenance needs, and exact location. It warns managers of operational abuse. The power of this system to keep track of and remind users of maintenance needs and current location are very useful tools. Also, a geo-fence will send a message notification communicating that it has been removed out of a specified area.

Cold Weather Kits

[various part numbers, see pricing pages]

Includes block heater, battery warmer and glow plugs.

Extreme Cold Weather Kits

[various part numbers, see pricing pages]

Includes everything in the base level Cold Weather Kit as well as a Heated Water Fuel Separator, extreme fluids (0W40 Oil, -45° Coolant), two starting batteries with one battery being isolated for operating the Output Connected Warning System if GPU-AD5013 has been ordered.





Tri Star

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